

REMARKS/ARGUMENTS

In the Office Action dated April 22, 2003, the Examiner objected to the drawings and rejected claims 20-23 as being obvious over Ruggie et al. (5,887,402) in view of Grantham et al. (6,528,175) and the article "The Rice Straw Demonstration Project Fund" (Proposed Grant Awards For Fiscal Year 1998-99 presented for consideration by the California Air Resources Board on April 22, 1999).

Claims 1-19 have been withdrawn as the result of the Examiner's earlier restriction requirement. Applicant retains the right to present any one or more of withdrawn claims 1-19 in one or more divisional application(s).

In the Drawings

In the Office Action, the Examiner objected to the drawings for failing to show every feature of the invention specified in the claims. Specifically, the Examiner asserted the following:

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the fire resistant door, doorframe and door skins must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Applicant has submitted new Figure 2 depicting the fire-resistant door, doorframe and door skins, and has amended the Written Description to reference Figure 2 as appropriate. As Figure 2 merely depicts in a graphical the matter described in the originally-submitted disclosure, Applicant respectfully submits that these amendments do not add new matter and their entry is respectfully requested. Applicant further respectfully submits that these amendments fully address the Examiner's objection under 37 C.F.R. § 1.83(a).

Claim Rejections under 35 U.S.C. § 103

In the Office Action, the Examiner rejected Claims 20-23 as being obvious over Ruggie et al. (5,887,402) in view of Grantham et al. (6,528,175) and the article "The Rice Straw Demonstration Project Fund" Proposed Grant Awards For Fiscal Year 1998-99 presented for

consideration by the California Air Resources Board on April 22, 1999. Specifically, the Examiner characterized his rejections as follows:

Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruggie et al. (5,887,402) in view of Grantham et al. (6,528,175) and the article "THE RICE STRAW DEMONSTRATION PROJECT FUND" Proposed Grant Awards For Fiscal Year 1998-99 Presented for the California Air Resources Board's Consideration On April 22, 1999, hereafter referred to as "the rice straw article".

In regard to claims 20 and 23, Ruggie discloses a fire resistant door (column 3, lines 5562) comprising an inner core 70 comprising a fiberboard in a resin matrix (column 9, lines 3041), a doorframe 20, and one or more door skins 11, 11A. Ruggie does not specifically disclose that said core comprises milled rice straw fiber or that the doorframe comprises a fire resistant material. Grantham teaches that it is known to form doorframes and door cores out of a fiberboard material that is fire resistant (column 2, lines 39-55). The rice straw article teaches that it is known to produce fiberboard panels out of a rice straw material, wherein the panels are used for door cores. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the door frame out of a fire resistant material, because if the door is fire resistant, but the frame is not, the fire will merely bum through the frame until the door collapses from lack of support. Therefore, if the frame is made of fire resistant material, the entire doorway will not bum when exposed to the flames.

In regard to the core material, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use rice straw for the fiberboard in place of Ruggie's fiberboard, because the rice straw is less expensive and also has an inherent fire resistance when compressed. Therefore, the rice straw will provide a better fire resistant core for the door structure.

In regard to claim 21, Ruggie in view of Grantham and the rice straw article disclose the basic claimed invention, except for specifically disclosing that the milled straw fiber has an average longitudinal length of approximately .125 inches to 1.5 inches. It would have been obvious to one having ordinary skill in the art at the time the invention was made to mill the fibers to the above length, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

In regard to claim 22, Ruggie in view of Grantham and the rice straw article disclose the basic claimed invention, wherein the door core further comprises a fire retardant material comprising sodium silicate. Grantham teaches that it is known to incorporate a sodium silicate material into fire doors and doorjamb materials, column 2, lines 47-67 and column 3, lines 1-12.

For the reasons set forth below, Applicant respectfully submits that original claims 20-23, as well as newly-submitted claims 24-39, are patentable over the cited art of record. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Applicant respectfully submits that the Examiner has not established that each of the numerous limitations present in original claims 20-23 can be found in the cited references. Applicant expressly disagrees with the Examiner's characterizations as to what the cited references teach. Further, Applicant respectfully submits that the Examiner has not identified any motivation to combine the references in the manner suggested by the Examiner, nor has he identified any teaching that such a combination would be successful. Accordingly, Applicant respectfully submits that a prima facie case of obviousness of claims 20-23 has not been established.

Applicant has submitted additional claims 24-39 claiming various additional aspects and embodiments of the present invention. For the same reasons that claims 20-23 are patentable and not obvious, Applicant respectfully submits that claims 24-39 are patentable and non-obvious.

Conclusion

In light of the above amendments, Applicant respectfully requests reconsideration by the Examiner. Applicant respectfully submits that the application is in condition for allowance, and the Applicant respectfully requests prompt, favorable action thereon. If the Examiner has any questions or comments, or if further clarification is required, it is requested that the Examiner contact the undersigned at the telephone number listed below. Please reference Attorney Docket No. 119068-1000.

Respectfully submitted,

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